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1 - 38. (Canceled).

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39. (New) A composite material comprising:

a plurality of beads having average diameters between about 1 mm and about 10 mm; and

an adhesive coating provided on at least 50 percent of the surfaces of at least 50 percent of the plurality of beads, a cured form of the adhesive having a hardness ranging from about Shore A 25 to about Shore A 95, the adhesive representing between about 20 percent and about 80 percent of the weight of the composite material, wherein the plurality of beads and the adhesive create a composite material having a system of void spaces.

40. (New) The composite material defined in Claim 39 wherein the beads are formed from a polymeric material selected from the group consisting of polyethylene, propylene, and ethyl propylene copolymer.

41. (New) The composite material defined in Claim 39 wherein the beads formed from a ceramic material.

42. (New) The composite material defined in Claim 39 wherein the beads formed from glass material.

43. (New) The composite material defined in Claim 39 wherein the beads formed from a plastic material.

44. (New) The composite material defined in Claim 39 wherein the beads formed from a thermosetting material.

45. (New) The composite material defined in Claim 39 wherein the beads are formed from a thermoplastic material.

46. (New) The composite material defined in Claim 39 wherein the beads are formed from an elastic material.

47. (New) The composite material defined in Claim 39 wherein the beads are formed from an inelastic material.

48. (New) The composite material defined in Claim 39 wherein the beads are solid.

49. (New) The composite material defined in Claim 39 wherein the beads are hollow.

50. (New) The composite material defined in Claim 39 wherein the beads have one or more holes passing therethrough.

51. (New) The composite material defined in Claim 39 wherein the beads have differing sizes.

52. (New) The composite material defined in Claim 39 wherein the beads are comprised of a mixture of different kinds of beads.

53. (New) The composite material defined in Claim 39 wherein the beads are spherical in shape.

54. (New) The composite material defined in Claim 39 wherein the beads are elliptical in shape.

55. (New) The composite material defined in Claim 39 wherein the beads are formed from different polymeric materials.

56. (New) The composite material defined in Claim 39 wherein the beads have diameters ranging from about 1 mm to about 4 mm.

57. (New) The composite material defined in Claim 39 wherein the adhesive coated beads have average diameters ranging from about 1 and about 4 mm.

58. (New) The composite material defined in Claim 39 wherein the beads and the adhesive create a system of void spaces that constitutes from about 10 to about 40 volume percent of the total volume of the composite material.

59. (New) The composite material defined in Claim 39 wherein the adhesive is formed from a two part resin.

60. (New) The composite material defined in Claim 39 wherein the adhesive is formed from a thermosetting synthetic resin.

61. (New) The composite material defined in Claim 39 wherein the adhesive is formed from a thermoplastic synthetic material.

62. (New) The composite material defined in Claim 39 wherein the beads are coated with a coupling agent to promote bead/adhesive bonding.

63. (New) The composite material defined in Claim 39 wherein the adhesive coating is provided on at least 80 percent of the surfaces of at least 50 percent of the plurality of beads.

64. (New) The composite material defined in Claim 39 wherein the material is disposed within a cloth casing.

65. (New) The composite material defined in Claim 39 wherein the material is disposed within a net casing.

66. (New) The composite material defined in Claim 39 wherein the material is disposed within a rigid outer shell.

67. (New) The composite material defined in Claim 39 wherein the material is a water permeable, composite construction material.

68. (New) The composite material defined in Claim 39 wherein the material is a breathable padding material.

69. (New) A composite material comprising:

a plurality of beads having electrical excitation zone-treated surfaces and having average diameters between about 1 mm and about 10 mm; and
an adhesive coating provided on at least 50 percent of the electrical excitation zone-treated surfaces of at least 50 percent of the plurality of beads, a cured form of the adhesive having a hardness ranging from about Shore A 25 to about Shore A 95, the adhesive representing between about 20 percent and about 80 percent of the weight of the composite material, wherein the plurality of beads and the adhesive create a composite material having a system of void spaces.

70. (New) The composite material defined in Claim 69 wherein the beads are electrical excitation zone-treated more than once to accomplish more than one kind of treatment.

71. (New) The composite material defined in Claim 69 wherein the beads are coated with a polymeric material by the action of an electrical excitation zone treatment.